What is claimed:

1. A method of increasing the production of starch in plants comprising culturing a plant with enhanced expression or activity of at least one starch biosynthesis enhancing protein.

2. The method of claim 1, wherein said starch has a high amylose content.

3. The method as claimed in either claim 1 or 2, wherein production of amylose is increased.

4. The method as claimed in any one of claims 1 to 3, wherein said method comprises over-expression of a starch biosynthesis enhancing protein.

5. The method as claimed in claim 4, wherein said protein comprises the SEQ ID NO: 2 or 4 or a protein derived from this sequence by substitution, insertion or deletion of amino acids and which has at least 50% identity at the amino acid level with SEQ ID NO: 2 or 4.

6. The method as claimed in any of claims 1 to 5, wherein the starch biosynthesis enhancing protein is encoded by a nucleic acid sequence selected from the group consisting of:

a) a nucleic acid sequence comprising a nucleotide sequence which is at least 60% identical to the nucleic acid sequence of SEQ ID NO: 1 or 3;

b) a nucleic acid sequence comprising a fragment of at least 30 nucleotides of a nucleic acid sequence comprising the nucleotide sequence of SEQ ID NO:1 or 3;

c) a nucleic acid sequence which encodes a polypeptide comprising an amino acid sequence at least about 60% identical to the amino acid sequence of SEQ ID NO:2 or 4 and

d) a nucleic acid sequence which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO: 2 or 4 or wherein the fragment comprises at least 10 contiguous amino acid residues of the amino acid sequence of SEQ ID NO:2 or 4,

7. The method as claimed in any one of claims 1 to 6, wherein the starch biosynthesis enhancing protein is encoded by a nucleic acid sequence comprising the nucleotide sequence set forth as SEQ ID NO:1 or SEQ ID NO:3.

8. The method as claimed in any one of claims 1 to 7, wherein deficiency or decreased activity is achieved by a method selected from the group consisting of:

a) knock-out of the gene encoding said protein;

b) mutagenesis of the gene encoding said protein, wherein said mutation can be induced in the coding, non-coding, or regulatory regions of said gene;

c) expression of an anti-sense RNA, wherein said anti-sense RNA is complementary to at least part of the RNA encoding said protein;

9. A method of producing amylose type starch by culturing a plant which over-expresses SEQ ID NO:1 or 3 or has increased starch biosynthesis enhancing activity under conditions such that the plant produces an increased amount of amylose type starch.

10. The method of any of the preceeding claims, wherein said plant belongs to the genus Solanum.

11. The method of claim 10, wherein said plant is Solanum tuberosum.

12. A nucleic acid sequence SEQ ID NO:1 encoding a starch biosynthesis enhancing protein.

13. A nucleic acid sequence SEQ ID NO:3 encoding a starch biosynthesis enhancing protein.

14. An amino acid sequence SEQ ID NO:2 having starch biosynthesis enhancing activity.

15. An amino acid sequence SEQ ID NO:4 having starch biosynthesis enhancing acitivity.

16. A transgenic expression cassette comprising in combination with a regulatory sequence a nucleic acid sequence selected from the group consisting of:

a) a nucleic acid sequence comprising a nucleotide sequence which is at least 60% identical to the nucleotide sequence of SEQ ID NO:1 or SEQ ID NO:3,

b) a nucleic acid sequence comprising a fragment of at least 30 nucleotides of a nucleic acid sequence comprising the nucleotide sequence of SEQ ID NO:1 or SEQ ID NO:3,

c) a nucleic acid sequence which encodes a polypeptide comprising an amino acid sequence at least about 60% identical to the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4, or

d) a nucleic acid sequence which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 wherein the fragment comprises at least 10 contiguous amino acid residues of the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4

wherein said regulatory sequence is capable of mediating expression of said nucleic acid sequence in a plant.

17. A transgenic expression cassette of claim 16, wherein said regulatory sequence is a promoter sequence heterologous with regard to said nucleic acid sequence.

18. A transgenic expression cassette of claim 16, wherein said regulatory sequence is a tuber specific promoter sequence.

19. A transgenic expression cassette of either claim 16, 17 or 18, wherein said nucleic acid sequence is arranged in antisense or sense orientation with regard to said promoter sequence.

20. A transgenic expression cassette of any of the claims 16 to 19, wherein said nucleic acid sequence encodes a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2 or SEQ ID NO:4.

21. A transgenic expression cassette of any of the claims 16 to 20, wherein said nucleic acid molecule comprises the nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:3.

22. A transgenic expression cassette of any of the claims 16 to 21, wherein said nucleic acid sequence encodes a naturally occurring variant of a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2 or SEQ ID NO:4.

23. A transgenic host cell transformed with an expression cassette of any of the claims 16 to 22.

24. A transgenic host cell of claim 23, wherein said host cell belongs to the genus Solanum.

25. A transgenic plant comprising an expression cassette of any of claims 16 to 22.

26. A transgenic potato plant comprising an expression cassette of any of claims 16 to 22.

27. A transgenic potato plant, plant part, seed or tuber comprising an expression cassette of any of claims 16 to 22.